

REMARKS

Reconsideration and allowance of the claims are requested in view of the above amendments and the following remarks. Claims 1, 8, 12, 16, 19, 27-31, 35, 37 and 41-45 have been amended. Support for the claim amendments may be found in the specification and claims as originally filed. No new matter has been added. Claims 20 and 38 have been canceled without prejudice or disclaimer.

Upon entry of this amendment, claims 1-46 will be pending in the present application, with claims 1, 8, 12, 16, 19, 27, 30, 34, 35, 37, 41 and 44 being independent.

1. Rejections Under 35 U.S.C. §101

The Office Action rejects claims 35-36 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicants respectfully traverse this rejection for at least the following reasons.

The Office Action on page 2 states that claims 35-36 are directed to a data structure, and because only a data structure is described and no functionality is attached to the data structure, no tangible result is produced.

Claim 35 has been amended to recite a data structure encoded on a computer readable medium for use in evaluating an input data record having fields containing data. Therefore, claim 35 recites a data structure encoded on a computer readable medium that defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory (see MPEP 2106.IV.B.1.(a)).

Claim 36 is patentable over 35 U.S.C. §101 at least by virtue of its dependency on claim 35.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims

Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003

35-36 under 35 U.S.C. §101 are respectfully requested.

2. Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1-2, 10 and 13-16 under 35 U.S.C. §102(e) as being anticipated by Lepien (U.S. Patent 6,636,850). Applicants respectfully traverse this rejection for at least the following reasons.

The Office Action on pages 3-4 asserts that Lepien teaches assigning a similarity score to an evaluation data record in relation to a reference record within a reference table based on a weight of tokens of the evaluation data record that is based on a count of the tokens from a corresponding field contained within the reference table (citing col. 7, lines 29-31).

Lepien discloses an aggregate score matching system for transaction records that compares each field in two records to determine if the records match (see abstract). The system comprises an initialization routine, a matching routine and a termination function (see col. 4, lines 9-13). The matching routine, or function, maintains two accumulators, one for positive scores and a second for negative scores. As a result of comparisons, the matching function adjusts the positive and negative accumulators (see col. 8, lines 19-31; FIG. 8). Lepien discloses that since the matching system relies on scores, an implicit weighting of certain fields in the records can be helpful in confirming otherwise less than certain matches (see col. 7, lines 29-31). Lepien also discloses that by assigning distinct scores for each score in a comparison, an implicit weighting of each field in any resultant aggregate score is achieved (see col. 5, lines 38-41). Therefore, Lepien teaches implicit weighting of fields in records, but does not teach weighting of tokens in an evaluation data record based on a count of the tokens in a reference record. Consequently, Lepien fails to teach or suggest the elements of assigning a similarity score to an evaluation data record in relation to a reference record within a reference table based on a weight of tokens of the evaluation data record that is based on a count of the tokens from a corresponding field contained within the reference table.

Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003

In contrast to Lepien, independent claim 1 includes the elements of assigning a similarity score to an evaluation data record in relation to a reference record within a reference table based on, among other elements, a weight of tokens of the evaluation data record that is based on a count of the tokens from a corresponding field contained within the reference table. Independent claim 16 includes similar elements.

Therefore, since Lepien does not teach, or even suggest, each and every element of claims 1 and 16, these claims are not anticipated by Lepien and are allowable. Claims 2, 10 and 13-15 depend from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the features recited therein, claims 2, 10 and 13-15 are also allowable.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims 1-2, 10 and 13-16 under 35 U.S.C. §102(e) are respectfully requested.

3. Rejections Under 35 U.S.C. §103

A. Obviousness in view of Lepien and Califano

The Office Action rejects claims 3, 9 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Lepien in view of Califano (U.S. Patent 5,577,249). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Lepien fails to disclose the elements of assigning a similarity score to an evaluation data record in relation to a reference record within a reference table based on a weight of tokens of the evaluation data record that is based on a count of the tokens from a corresponding field contained within the reference table, as included in independent claim 1. Lepien fails to disclose similar elements in claim 16.

Califano fails to cure this defect in Lepien. Califano discloses a method for finding sequences of tokens identical or similar to a reference sequence of tokens in one or more original strings of tokens within a database having one or more original strings (see col. 2, lines 53-56; col. 3, lines 12-20). The Office Action applies Califano in asserting that the elements

Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003

specifically recited in dependent claims 3, 9 and 17 are disclosed by the prior art. However, even assuming *arguendo* that Califano discloses the elements specifically recited in dependent claims 3, 9 and 17, Califano still fails to teach or suggest the elements of assigning a similarity score to an evaluation data record in relation to a reference record within a reference table based on a weight of tokens of the evaluation data record that is based on a count of the tokens from a corresponding field contained within the reference table, as included in independent claim 1, or similar elements included in independent claim 16. Therefore, since Lepien and Califano, alone or in combination, fail to disclose or suggest all of the elements of claims 1 and 16, claims 1 and 16 are allowable over Lepien in view of Califano.

Claims 3 and 9 depend from claim 1. Claim 17 depends from claim 16. As discussed above, claims 1 and 16 are allowable. For at least this reason, and the features recited therein, claims 3, 9 and 17 are also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claims 3, 9 and 17 under 35 U.S.C. §103(a) are respectfully requested.

B. Obviousness in View of Lepien, Califano and Ananthakrishna et al.

The Office Action rejects claims 4-7, 11, 18-26, 28-29, 31-40, 42-43 and 45-46 under 35 U.S.C. § 103(a) as being unpatentable over Lepien in view of Califano and in further view of Ananthakrishna et al. (“Eliminating Duplicates in Data Warehouses”).

As discussed above, Lepien and Califano, alone or in combination, fail to disclose the elements of assigning a similarity score to an evaluation data record in relation to a reference record within a reference table based on a weight of tokens of the evaluation data record that is based on a count of the tokens from a corresponding field contained within the reference table, or similar elements, as included in independent claims 1 and 16.

Ananthakrishna et al. fails to cure this defect in Lepien and Califano. Ananthakrishna et al. discloses an algorithm for eliminating duplicates in dimensional tables in a data warehouse,

Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003

which are usually associated with hierarchies (see abstract). The Office Action applies Ananthakrishna et al. in asserting that the prior art discloses, in various forms, the elements of an index table, or building an index table, wherein entries of the index table contain a token substring and a list of reference records (see Office Action, pages 19, 32, 34 and 37). However, even assuming *arguendo* that Ananthakrishna et al. discloses the elements as specifically asserted by the Office Action, Ananthakrishna et al. still fails to teach or suggest the elements of assigning a similarity score to an input data record in relation to a candidate set of reference records based on a weight of the tokens in the evaluation field of the input data record that is based on a count of the tokens from a corresponding field contained within the reference records, as included in amended independent claims 19 and 37. Similarly, Ananthakrishna et al. fails to teach or suggest the elements of assigning a score to candidate records based on a weight of the tokens in the input data record that is based on a count of the tokens from a corresponding field contained within the reference table, as included in independent claim 34. Furthermore, Ananthakrishna et al. fails to teach or suggest the elements of a similarity score assigned to an input data record in relation to a record within a reference table based on a weight of tokens of the input data record that is based on a count of the tokens from a corresponding field contained within the reference table, as included in amended independent claim 35. Therefore, since Lepien, Califano and Ananthakrishna et al., alone or in combination, fail to disclose or suggest all of the elements of independent claims 1, 16, 19, 34, 35 and 37, these claims are allowable over Lepien in view of Califano and in further view of Ananthakrishna et al.

Claims 4-7 and 11 depend from claim 1. Claim 18 depends from claim 16. Claims 20-26, 28-29 and 31-33 depend from claim 19. Claim 36 depends from claim 35. Claims 38-40, 42-43 and 45-46 depend from claim 37. As discussed above, claims 1, 16, 19, 35 and 37 are allowable. For at least this reason, and the features recited therein, claims 4-7, 11, 18, 20-26, 28-29, 31-33, 36, 38-40, 42-43 and 45-46 are also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claims

Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003

4-7, 11, 18-26, 28-29, 31-40, 42-43 and 45-46 under 35 U.S.C. §103(a) are respectfully requested.

4. Allowable Claims

Applicants thank the Examiner for indicating that claims 8, 12, 27, 30, 41 and 44 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8, 12, 27, 30, 41 and 44 have been amended to be in independent form and to include all of the elements of the base claim and any intervening claims. For at least this reason, claims 8, 12, 27, 30, 41 and 44 are now allowable.

5. Conclusion

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the present application is requested. Based on the foregoing, applicants respectfully request that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the applicants' attorney at the telephone number listed below.


Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003

PATENT

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,
Microsoft Corporation

Date: 10/27/06

By: 
Sung T. Kim, Reg. No.: 45,398
Attorney for Applicants
Direct telephone: (703) 647-6574
Microsoft Corporation
One Microsoft Way
Redmond WA 98052-6399

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being electronically deposited with the USPTO via EFS-Web on the date shown below:

October 27, 2006
Date


Signature

Kate Marochkina
Type or Print Name

Type of Response: Amendment
Application Number: 10/600,083
Attorney Docket Number: 301555.01
Filing Date: June 20, 2003